

**BRING  
TEXTBOOK!!!**

# Warmup 11/ (*Solution of $\frac{1}{7}x = 1$* )

**PAPER RETURNERS: RETURN ALL PAPERS! Then they can study the homework for the quiz! (You should be doing this every day!)**

1. Create your own equation that has a solution of 5. Your equation should have variables on both sides.
2. Create your own equation that has a solution of  $\frac{1}{2}$ .

# ON THE BACK (AND in a different color):

- You must **redo** the ones you got wrong until you figure out how to get the right answer.
- If you got a 100% or when you have finished your corrections, you have permission to **float around and help people!** Take your worksheet with you so that you can help them better.

## Equations Worksheet:

CHECK YOUR ANSWERS. Write the correct answer in a different color if you got it wrong!

$$14) \quad p = 7$$

$$19) \quad g = 50$$

$$15) \quad p = -10$$

$$20) \quad g = -4$$

$$16) \quad p = 8$$

$$21) \quad (\text{check})$$

$$17) \quad p = \frac{9}{8} \text{ or } 1\frac{1}{8}$$

$$18) \quad g = 5$$

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## Equations with Distributive Property

### Objective:

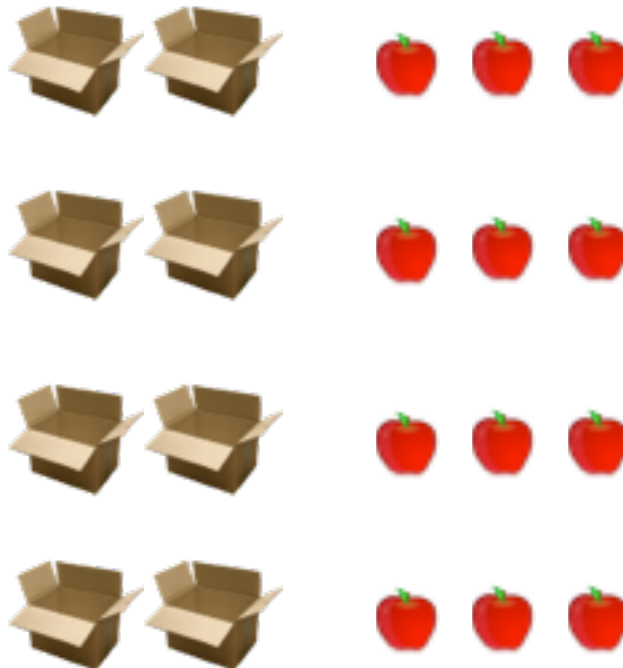
**-Solve equations using the distributive property**

A visual way to understand the distributive property:

$$4(2x + 3)$$

Q: How would I show it with boxes and apples?

**COPY!!!**



(4 groups.  
Each group  
has  $2x + 3$ .)

# Distributive Property

- Distribute:

$$4(x - 2)$$

$$4x - 8$$

$$3(4x + 1)$$

$$12x + 4$$

$$-2(3a - 4b + 7)$$

$$-6a + 8b - 14$$



For your notes:

Distribute and combine like terms:

$$-4(5a - 3) + 12a - 8$$

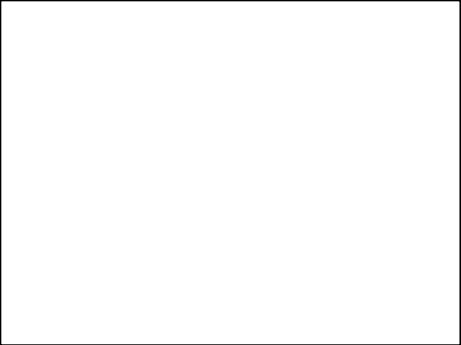
$$\underline{-20a} + \underline{12} + \underline{12a} - \underline{8}$$

$$\boxed{-8a + 4}$$

$$\cancel{-4a} \leftarrow \text{BAD}$$

$$\cancel{8a + 4 = 20}$$

$$\cancel{8a + 4}$$


$$4(2n + 3) = 20$$

- What does the **(2n + 3)** part have to equal???

From the pretest:

$$4(2n + 3) = 20$$

2 ways to solve:

$$\frac{4(2n + 3)}{4} = \frac{20}{4}$$

$$2n + 3 = 5$$

$$2n + 3 = 5$$

$$\frac{-3}{-3}$$

$$\frac{-3}{-3}$$

$$2n = 2$$

$$n = 1$$

$$4(2n + 3) = 20$$

$$8n + 12 = 20$$

$$\frac{-12}{-12}$$

$$\frac{-12}{-12}$$

$$8n = 8$$

$$n = 1$$

For your notes:

$$6(3x - 2) = 24$$

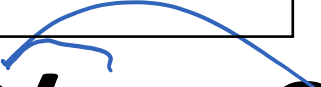
1. Solve by distributing first:

$$\begin{array}{rcl} 6(3x - 2) & = & 24 \\ 18x - 12 & = & 24 \\ +12 & +12 & \\ \hline 18x & = & 36 \\ \frac{18x}{18} & = & \frac{36}{18} \end{array} \quad \boxed{x=2}$$

2. Solve by dividing by 6 first:

$$\begin{array}{rcl} \cancel{6}(3x - 2) & = & \cancel{24} \\ \cancel{6} & & 6 \\ 3x - 2 & = & 4 \\ +2 & +2 & \\ \hline 3x & = & 6 \\ \frac{3x}{3} & = & \frac{6}{3} \end{array} \quad \boxed{x=2}$$

Solve:

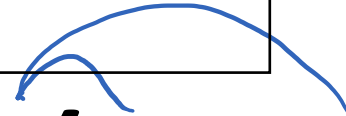

$$3(x + 8) = 18$$

$$\begin{array}{r} 3x + 24 = 18 \\ -24 \quad -24 \\ \hline \end{array}$$

$$\frac{3x}{3} = \frac{-6}{3}$$

$$x = -2$$

Solve:


$$-2(4x - 1) = 34$$

$$\begin{array}{rcl} -8x + \cancel{2} & = & 34 \\ \quad \quad \quad \cancel{-2} & & \quad \quad \quad \cancel{-2} \end{array}$$

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$$\begin{array}{rcl} -8x & = & 32 \\ \hline -8 & & -8 \end{array}$$

$$x = -4$$



Solve:

$$5(2x + 1) = 23$$



Solve:

$$3(x - 4) = x + 8$$





Solve:

$$15 \left( \frac{2}{5}x + 1 \right) = 6 \left( \frac{2}{3}x + 5 \right)$$



Solve:

$$10(3y - 2) - 20y = 70$$



Solve:

$$10 - 4(2x - 9) = 30$$



Solve:

$$-x + 8 = \frac{x}{5}$$



# Homework

- p. 157 (1, 2, 3)